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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,287	08/15/2001	Konrad Roman Weeber	839-1082	8196

7590 11/07/2002

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EXAMINER

WAKS, JOSEPH

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 11/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/929,287

Applicant(s)

WEEBER ET AL.

Examiner

Joseph Waks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Drawings*

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Specification*

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In line 1, "machine is disclosed" is a phrase that can be implied.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-23** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 6-7, "a stator ventilation system separate and independent from the rotor cooling system" is indefinite since it does not define with respect to what the systems are

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independent since it is clear that the total cooling requirement must be defined for the machine and each of the cooling systems that influence contributes to the total cooling and therefore at least with this respect they are not independent from each other.

In claim 2, line 2, "cooling gas" should be --a cooling gas--.

In claim 5, line 3, "cryogenic fluid" should be --a cryogenic fluid--.

In claim 9, line 3, "cooling gas" should be --a cooling gas--.

In claim 10, line 3, "cooling gas" should be --a cooling gas--.

In claim 11, line 13, "cryogenic cooling fluid" should be --a cryogenic cooling fluid -- and lines 14-15, "cooling gas" should be --a cooling gas--.

In claim 18, line 3, "cooling gas" should be --a cooling gas--.

In claim 20, line 11, "rotor core" should be --said rotor core--, and line 12, "any rotor cooling system" is indefinite.

In claim 21, line 3, "the stator cooling gas passages" lacks antecedent basis.

In claim 23, line 6, "heat exchanger" should be --said heat exchanger--.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claim 1** is rejected under 35 U.S.C. 102(b) as being anticipated by **Curtis et al. (US 3,735,502)**.

**Curtis et al.** disclose in Figure 1 invention as claimed: a rotor 20 coupled to a rotor cooling system, a stator 10 around the rotor separated by an annular gap, and a stator ventilation system separate and independent from the rotor cooling system (Re column 3, lines 56-63).

7. **Claims 1-3, 5-7, 11, 12, 14-16, 19, 20** are rejected under 35 U.S.C. 102(b) as being anticipated by **Karhan et al.** (US 4,352,034).

**Karhan et al.** disclose in Figure 1 invention as claimed: a rotor 13 coupled to a rotor cooling system (Re column 1, lines 41-46), a stator 10 around the rotor separated by an annular gap, and a stator ventilation system separate and independent from the rotor cooling system (Re column 3, lines 56-63).

Re claim 5, see column 1, lines 12-45.

Re claims 6-7, **Karhan et al.** teach the dynamoelectric machine which encompass both the electrical generators and electric motors.

Re claim 11, the feature of rotor having passages for a cryogenic cooling fluid is inherent to the structure disclosed by **Karhan et al.**

Re claims 20-22, **Karhan et al.** disclose all elements of the machine including the fan as claimed. Claims 20-22 that merely recite connecting and using the disclosed features together is inherent to the disclosed structure.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 4, 9, 13, 18 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Karhan et al. (US 4,352,034)** in view of **Kleinhans (US 4,845,394)**.

**Karhan et al.** disclose the machine essentially as claimed. However, **Karhan et al.** do not disclose the ventilation system having a heat exchanger.

**Kleinhans** discloses electric machine having a stator ventilation system involving a closed loop ventilation including heat exchangers 13 and 14 for the purpose of maintaining stator windings at desired temperature operating range.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the machine as taught by **Karhan et al.** and to provide a closed loop ventilation including heat exchangers maintaining stator windings at desired temperature operating range as taught by **Kleinhans** for the purpose of preventing a discharge of a highly explosive cooling medium, like the hydrogen contemplated in **Karhan et al.** disclosure.

10. **Claims 8, 10, and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Karhan et al. (US 4,352,034)** in view of **Jarczynski et al. (US 5,633,543)**.

**Karhan et al.** disclose the machine essentially as claimed. However, **Karhan et al.** do not disclose the ventilation system being a reverse flow type.

**Jarczynski et al.** disclose electric machine having a stator ventilation system involving a reverse flow for the purpose of utilizing the readily available air as a cooling medium while compensate for the losses accompanied by the necessary increase in flow as compared with lower losses of a higher cooling capacity medium such as hydrogen.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the machine as taught by **Karhan et al.** and to provide the reverse

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flow ventilation system as taught by **Jarczynski et al.** for the purpose of utilizing the readily available air as a cooling medium while compensate for the losses accompanied by the necessary increase in flow as compared with lower losses of a higher cooling capacity medium such as hydrogen.

It would have been further obvious to provide an open loop air cooled system for t a smaller dynamoelectric machine for the purpose of reducing the cost of the system by eliminating heat exchange system, since it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184.

Re claim 23, the combined machine discloses all the features as claimed. Claim 23 that merely recites connecting and using the disclosed features together is inherent to the disclosed structure.

#### ***Prior Art***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

#### ***Communication***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Waks whose telephone number is (703) 308-1676. The examiner can normally be reached on Monday through Thursday 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R Ramirez can be reached on (703) 308-1371. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

  
JOSEPH WAKS  
PRIMARY PATENT EXAMINER  
TC-2800

JW

November 5, 2002